REMARKS

The claims remaining in the present application are Claims 1-3, 6, 8-11, 16, 20-39, 48-51, 53-66, 76-88 and 93-99. Claims 1, 2, 6, 8, 20, 25, 29, 36, and 48 have been amended. Claims 94-99 have been added. Claims 12-15, 17-19, 27-28, 38-39,52, 54-55, and 85-86 have been cancelled, without prejudice. No new matter has been added as a result of these amendments.

EXAMINER INTERVIEW SUMMARY

On July 14, 2004, Ronald Pomerenke, Anthony Murabito, and Bryn Ekroot, representatives for the Applicants, and Rahul Patel conducted a telephonic interview with the Examiner. Representatives for the Applicants argued that the limitations from Claim 16 of "executing instructions in said computer processor while changing voltage at which said computer processor is operated," are not taught by Horden et al., U.S. Pat. No. 5,812,860. Applicants agreed to submit this amendment.

CLAIM REJECTIONS

35 U.S.C. §102

CLAIMS 12, 16, 20, 25, 29, 36-37, 39, 48, 52, 56, 60-61, 66, and 76-77

Claims 12, 16, 20, 25, 29, 36-37, 39, 48, 52, 56, 60-61, 66, and 76-77 are rejected under 35 U.S.C. §102 as being anticipated by Horden et al. U.S. Pat. No. 5,812,860. Claims 12, 52, and 39 have been cancelled, without prejudice. Therefore, the rejection to Claims 12, 52, and 39 is moot. The

rejection to Claims 16, 20, 25, 29, 36-37, 48, 56, 60-61, 66, and 76-77 is respectfully traversed for the following reasons.

Independent Claim 16 recites:

> A method of controlling a computer processor, comprising:
> monitoring operating conditions internal to said computer processor;
> determining a frequency and a voltage at which to operate said computer processor, based on said internal operating conditions; and
> implementing the determined frequency and voltage, wherein said implementing comprises:
> executing instructions in said computer processor while changing voltage at which said computer processor is operated.

Applicants traverse the rejection to Claim 16 on the grounds that Horden fails to teach or suggest the claim limitations of, "executing instructions in said computer processor while changing voltage at which said computer processor is operated."

The limitations "executing instructions in said computer processor while changing voltage at which said computer processor is operated," of Claim 16 describe instructions that are clocked through a computer processor while changing the voltage at which the computer processor is operated. Therefore, while the processor voltage is being changed, the processor is not suspended from executing instructions through its processing circuitry. Horden does not teach that instructions are executed during a voltage transition.

Applicants further respectfully assert that the Intel 82801CAM I/O Controller Hub 3 (ICH3-M) reference (hereinafter, the Intel reference) is evidence that one of ordinary skill in the art would interpret the Horden reference as suspending execution of instructions in the processor while changing the voltage at which the processor is operated. However, the Applicants express no opinion as to any product relationship between the Intel reference and the Horden reference, which is an Intel Patent.

Figure 16-26 of the Intel reference illustrates the relationship between changing voltage and executing instructions for the system shown in figure 5-14. The "SSMUXSEL" signal selects the voltage level for the processor. The timing interval labeled "t216" in figure 16-26 indicates to one of ordinary skill in the art the time period during which the voltage change occurs. The voltage change represented by the "SSMUXSEL" change and the foregoing timing interval occur when the processor clock ("CPU CLK") is not running. The processor cannot execute instructions while the processor clock is not running. Therefore, the claim limitations of "executing instructions in said computer processor while changing voltage at which said computer processor is operated," are not taught, suggested or implied by Horden or the Intel reference.

Independent Claims 20, 29, 48, and 76 comprise similar limitations to those discussed in the response to Claim 16. Applicants respectfully assert

that Claims 20, 29, 48, and 76 are allowable for reasons discussed in the response to Claim 16.

Claims 25, 36-37, 56, 60-61, 66, and 77 depend from Independent Claims 20, 29, 48, and 76. As a result of their dependency from claims that are believed to be allowable, Claims 25, 36-37, 56, 60-61, 66, and 77 are believed to be allowable.

35 U.S.C. §103

Claims 1, 65, 83, and 88

Claims 1, 65, 83, and 88 are rejected under 35 U.S.C. §103 as being unpatentable over Horden. The rejection to Claims 1, 65, 83, and 88 is respectfully traversed for the reasons below.

Claim 1 recites, in part:

> wherein said dynamically changing the power consumption comprises executing instructions in said computer processor while changing voltage at which said computer processor is operated.

Independent Claim 1 comprises similar limitations to those discussed in the response to Claim 16. Applicants respectfully assert that Claim 1 is neither taught nor suggested by Horden for reasons discussed in the response to Claim 16.

Claims 83 and 88 depend from Claim 1, which is believed to be allowable for the above reasons. Therefore, Claims 83 and 88 are believed to be allowable as a result of their dependency from Claim 1.

Claim 65 depends from Claim 48, which comprises similar limitations to those discussed in the response to Claim 16. Applicants respectfully assert that Claim 65 is neither taught nor suggested by Horden for reasons discussed in the response to Claim 16.

Claims 2-3, 6, 8-11, 78-79, and 87

Claims 2-3, 6, 8-11, 78-79, and 87 are rejected under 35 U.S.C. §103 as being unpatentable over Horden in view of Weiss et al., U.S. Pat. No. 5,774,703 (hereinafter Weiss). The rejection is respectfully traversed. Neither Horden nor Weiss, alone or in combination, teach or suggest the limitations of Claims 2-3, 6, 8-11, 78-79, and 87.

Independent Claim 2 recites, in part:

a central processor including:

...

means for executing instructions in said central processor while changing voltage at which said central processor is operated.

Independent Claim 6 recites, in part:

> executing instructions in said central processor while changing voltage at which said central processor is operated.

Independent Claim 8 recites, in part:

> a central processor including:
>
> ...
>
> wherein the means for detecting the values indicative of operating conditions of the central processor is further for causing execution of instructions in said central processor while changing voltage at which said central processor is operated

Independent Claims 2, 6, and 8 comprise similar limitations to those discussed in the response to Claim 16. Applicants respectfully assert that Claims 2, 6, and 8 are neither taught nor suggested by Horden for reasons discussed in the response to Claim 16.

Weiss fails to remedy this deficiency in Horden in that the combination of Horden and Weiss fails to teach or suggest these limitations in Claims 2, 6, and 8.

For the foregoing rationale, it is respectfully submitted that Claims 2, 6, and 8 are patentable over Horden in view of Weiss. As such, allowance of Claims 2, 6, and 8 are respectfully solicited.

Claim 3 depends from Claim 2. By virtue of its dependency on Claim 2, Claim 3 is believed to be patentable over Horden in view of Weiss.

Claims 9-11 depend from Claim 8. By virtue of their dependency on Claim 8, Claims 9-11 are believed to be patentable over Horden in view of Weiss.

Claims 78 and 79 depend from Claim 76, which comprises claim limitations similar to those discussed in the response to Claim 16. Applicants respectfully assert that Claims 78 and 79 are neither taught nor suggested by Horden for reasons discussed in the response to Claim 16. Weiss fails to remedy this deficiency in Horden in that the combination of Horden and Weiss fails to teach or suggest these limitations in Claims 78 and 79.

Claim 87 depends from Claim 1. For the reasons discussed in the response to Claim 1 herein, Horden fails to teach or suggest, "wherein said dynamically changing the power consumption comprises executing instructions in said computer processor while changing voltage at which said computer processor is operated," as recited in Claim 1. Weiss fails to remedy this deficiency in Horden in that the combination of Horden and Weiss fails to teach or suggest the limitations in Claim 1. Therefore, Claim 1 is believed to be patentable over Horden in view of Weiss. By virtue of its

dependency on Claim 1, Applicants assert that Claim 87 is patentable over Horden in view of Weiss.

Claims 13-15, 17-19, 21-23, 26-28, 33-35, 38, 49-51, 53-55, 80-82, and 84-86

Claims 13-15, 17-19, 21-23, 26-28, 33-35, 38, 49-51, 53-55, 80-82, and 84-86 are rejected under 35 U.S.C. §103 as being unpatentable over Horden in view of Michail et al., U.S. Pat. No. 5,832,284 (hereinafter, Michail). Claims 13-15, 17-19, 27-28, 38, 54-55, and 85-86 have been cancelled, without prejudice. Consequently, the rejection to Claims 13-15, 17-19, 27-28, 38, 54-55, and 85-86 is rendered moot. The rejection to Claims 21-23, 26, 33-35, 49-51, 53, 80-82, and 84 is respectfully traversed for the following reasons.

Claims 21-23 and 26 depend from Claim 20. Claims 33-35 depend from Claim 29. Claims 49-51 and 53 depend from Claim 48. Claims 80, 82 and 84 depend from Claim 1. Claim 81 depends from Claim 48.

For the reasons discussed above, Horden fails to teach or suggest the limitations in Claim 1, 16, 20, 29, and 48. Michail fails to remedy this deficiency in Horden in that the combination of Horden and Michail fails to teach or suggest the limitations in Claims 1, 16, 20, 29, and 48. Therefore, Claims 1, 16, 20, 29, and 48 are believed to be patentable over Horden in

view of Michail. By virtue of their respective dependences, Claims 21-23, 26-28, 33-35, 38, 49-51, 53-55, 80-82, 84-86, and 94-99 are believed to be patentable over Horden in view of Michail.

CLAIM 24

Claim 24 is rejected under 35 U.S.C. §103 as being unpatentable over Horden in view of Klein et al., U.S. Pat. No. 5,913,067 (hereinafter Klein). The rejection is respectfully traversed for the following reasons.

Claim 24 depends from Claim 20. For the reasons discussed above, Horden fails to teach or suggest the limitations in Claim 20. Klein fails to remedy this deficiency in Horden in that the combination of Horden and Klein fails to teach or suggest the limitations in Claims 20. Therefore, Claim 20 is believed to be patentable over Horden in view of Klein. By virtue of its dependency on Claim 20, Claim 24 is believed to be allowable.

Claims 30-32, 57-59, and 62-64

Claims 30-32, 57-59, and 62-64 are rejected under 35 U.S.C. §103 as being unpatentable over Horden in view of Fung et al., U.S. Pat. No. 5,710,929 (hereinafter Fung). The rejection is respectfully traversed for the following reasons.

Claims 30-32 depend from Claim 29. Claims 57-59 and 62-64 depend from Claim 48. For the reasons discussed above, Horden fails to teach or suggest the limitations in Claims 29 and 48. Fung fails to remedy this deficiency in Horden in that the combination of Horden and Klein fails to teach or suggest the limitations in Claims 29 and 48. Therefore, Claims 29 and 48 are believed to be patentable over Horden in view of Fung. By virtue of their respective dependencies on Claims 29 and 48, Claims 30-32, 57-59, and 62-64 are believed to be allowable.

NEW CLAIMS

Claims 94-99 have been added. No new matter has been added as a result. Claims 94-99 depend from Claim 16, which is believed to be allowable for reasons discussed herein. New Claims 94-99 are believed to be allowable by virtue of their dependency from Claim 16.

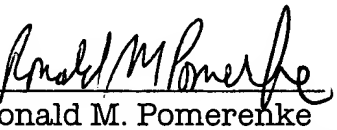
CONCLUSION

In light of the above listed amendments and remarks, reconsideration of the rejected Claims is requested. Based on the arguments and amendments presented above, it is respectfully submitted that Claims 1-3, 6, 8-11, 16, 20-26, 29-37, 48-51, 53, 56-66, 76-84, 87-88 and 93-99 overcome the rejections of record and, therefore, allowance of Claims 1-3, 6, 8-11, 16, 20-26, 29-37, 48-51, 53, 56-66, 76-84, 87-88 and 93-99 is earnestly solicited.

Should the Examiner have a question regarding the instant response, the Applicants invite the Examiner to contact the Applicants' undersigned representative at the below listed telephone number.

Respectfully submitted,
WAGNER, MURABITO & HAO LLP

Dated: 9/3, 2004



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